HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS

March 15, 2017

Mr. Dana Bayuk Oregon Department of Environmental Quality Northwest Region, Portland Office Portland Harbor Section 700 NE Multnomah Street, #600 Portland, Oregon 97232

HAI Project No. 2708 DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and 7200 NW Front Avenue, Portland, Oregon

Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of February 2017. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1. ACTIONS TAKEN UNDER THE VOLUNTARY AGREEMENT DURING THE PREVIOUS MONTH

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during February 2017. The DNAPL storage tank previously reached capacity with 492 gallons measured in the tank and therefore the system automatically shut-off. Scheduling of the product removal from this tank for re-refining will occur after profile renewal at the receiving facility, which is pending.

Tasks related to maintenance of the HC&C system and the groundwater treatment system were conducted in February 2017, with the system operating in full long-term operational mode. February 2017 activities included completion of Aqua Gard injection / rehabilitation activities at 23 HC&C system extraction wells.

Observations of surface water overland flow were conducted during February in accordance with the *Stormwater Source Control Work Plan*.

A total of 10,301,954 gallons of water were treated in the on-site groundwater treatment plant and discharged during February 2017. Discharged water met all effluent criteria set by the facility's NPDES permit.

Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during February 2017 in the following wells near the river shoreline.

- MW-26U
- MW-27U
- MW-38U

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- MW-PW2L
- PW-2L
- PW-6U

2. ACTIONS SCHEDULED TO BE TAKEN IN THE NEXT MONTH

NW Natural and DEQ technical working group communications and meetings will occur as needed within the next month to discuss ongoing project tasks.

Preparation of the RI/RA Addendum for the northern portion of the Siltronic property will continue during the indicated timeframe.

Observations of surface water overland flow will continue to be made in accordance with the *Stormwater Source Control Work Plan*.

Routine Baseline DNAPL measurements and removal will continue as needed to maintain levels below the top of the well sumps in nearshore HC&C-related wells.

Routine groundwater monitoring activities as part of the recently updated Integrated Groundwater Monitoring Program (modifications approved by DEQ in a March 6, 2017 communication (Dana Bayuk to John Renda) will be initiated in March 2017. A March 13 email (John Renda to Dana Bayuk) was sent to confirm and clarify the modifications to the monitoring program.

Activities as per the May 2016 Gasco Uplands Data Gaps Investigation Work Plan, revised based on DEQ's February 14, 2017 comment letter and a follow-up working meeting on February 23, 2017, are tentatively scheduled to begin in late March / early April. Clarifications regarding the additional DEQ-requested scope are presently being resolved with DEQ and the work is anticipated to begin as soon as these remaining items are resolved.

Installation of new HC&C system pumping well PW-10U will be initiated during March.

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH

NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved work plans. These data are provided to DEQ or the permitting authority (if different than DEQ) in accordance with previously-approved formats and schedules.

There were no test results received within the previous month that will not be reported in accordance with previously-approved formats and schedules.

4. PROBLEMS EXPERIENCED DURING THE PREVIOUS MONTH

There were no problems of significance experienced during the previous month.

Should you have any questions, please contact the undersigned.

Sincerely,

Rob Ede, R.G.

Principal

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